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EXAMINER

SHAPIRO, LEONID

ART UNIT PAPER NUMBER

2673

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,486

Applicant(s)

EDGE ET AL.

Examiner

Leonid Shapiro

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-43 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-42 of copending Application No. 09/778704. This is a provisional obviousness-type double patenting rejection.

Relative to claims 1, 15, and 26, although claims 1, 15, and 26 are not identical to claims 1, 16 and 27-34 of said Pub. No. 2002/0015044 A1, they are not patentably distinct from each other because they are describing an estimated gamma for a green channel of display device and estimating overall gamma for red, blue and green as gray balance by shifting red-blue elements with gray background for system including web server and computer readable medium containing instructions.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-5, 9-10, 13, 26, 29-30, 35, 38, 41, 43 rejected under 35 U.S.C. 103(a) as being unpatentable over Engeldrum et al. (US Patent No. 5,638,117) in view of Lui et al. (US Patent No. 6,396,505) and "why do Images Appear Darker on Some Displays? An Explanation of Monitor Gamma" by Robert W. Berger, copyright 1997 (referenced hereinafter as "Berger").

As to claim 1, Engeldrum et al. teaches a method with characterizing overall gamma for red, blue, and green channels of the display device based on estimated gamma (See Fig. 1-2, items 102, 104, 302, 304 in description See Col. 3, Lines 2-20); modifying the overall gamma based on a gray balance evaluation for the red and blue channels (See Fig. 5, items 500, 102, 206, in description See Col. 3, Lines 50-63).

Engeldrum et al. teaches a preliminary step in characterizing or calibrating monitor to set up the brightness to a value that will maximize the number of visible colors that can be displayed (See Fig. 2, items 104, 200, in description See Col. 2, Lines 43-48).

Engeldrum et al. does not teach estimating an initial gamma for a display device based on selection of a displayed green element that appears to most closely blend with a green background.

Lui et al. teaches that humans are not equally sensitive to the colors of red, green and blue, with green luminous intensity equal 60% (see Col. 4, Lines 51-56) and to correct gamma (in the reference is equivalent to reduction of color errors) for green pixels on green background (See Fig. 9E, items 1902, 1904, 1906, 1912, from Col. 25, Line 20 to Col. 26, Line 6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use green color for initial gamma estimate/calibration as shown by Lui et al. in the Engeldrum et al. system in order to compensate for color error in images (See Col. 1, Lines 15-20 in Lui et al. reference).

Engeldrum et al. and Lui et al. do not show dithered background.

Berger teaches to use dithered background (See page 2, 4th paragraph).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Berger into Lui et al. and Engeldrum et al. system in order to use two different green areas (background and pixel) need to be generated in different ways for process to work.

As to claim 26, Engeldrum et al. teaches a computer-readable medium containing instructions to cause a programmable processor to characterize overall gamma for red, blue, and green channels of the display device based on estimated gamma (See Fig. 1-2, items 102, 104, 302, 304 in description See Col. 3, Lines 2-20); modify the overall gamma based on a gray balance evaluation for the red and blue channels (See Fig. 5, items 500, 102, 206, in description See Col. 3, Lines 57-63).

Engeldrum et al. teaches a preliminary step in characterizing or calibrating monitor to set up the brightness to a value that will maximize the number of visible colors that can be displayed (See Fig. 2, items 104, 200, in description See Col. 2, Lines 43-48).

Engeldrum et al. does not teach estimating an initial gamma for a display device based on selection of a displayed green element that appears to most closely blend with a dithered green background.

Lui et al. teaches that humans are not equally sensitive to the colors of red, green and blue, with green luminous intensity equal 60% (see Col. 4, Lines 51-56) and to correct gamma (in the reference is equivalent to reduction of color errors) for green pixels on green background (See Fig. 9E, items 1902, 1904, 1906, 1912, from Col. 25, Line 20 to Col. 26, Line 6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use green color for initial gamma estimate/calibration as shown by Lui et al. in the Engeldrum et al. system in order to compensate for color error in images (See Col. 1, Lines 15-20 in Lui et al. reference).

Engeldrum et al. and Lui et al. do not show dithered background.

Berger teaches to use dithered background (See page 2, 4th paragraph).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Berger into Lui et al. and Engeldrum et al. system in order to use two different green areas (background and pixel) need to be generated in different ways for process to work.

As to claims 4-5, Engeldrum et al. teaches selecting one of a first plurality of green elements displayed by the display device that appears to most closely blend with the dithered green background; estimating a coarse gamma for the display device based on the selected one of the first plurality of green elements (See above the rejection of claim 1).

Engeldrum et al. and Lui et al., Berger do not teach selecting one of the second plurality of the green elements displayed by the display device that appears to most closely blend with dithered green background, wherein the second plurality of green elements includes the selected one of the first plurality of green elements; and estimating a fine gamma for display device based on the selected one of the second of plurality of green elements, wherein the estimated fine gamma is the estimated gamma and the first plurality of green elements represent greater gradations in the green intensity than the second plurality of green elements.

One of ordinary skill in the art will recognize that the first and second plurality of green elements only differ in the scale of gradations, therefore will require no new approach.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the second plurality of green elements and estimate a fine gamma in the Engeldrum et al. and Lui et al., Berger method in order to display color images accurately and clearly.

As to claims 29-30, Engeldrum et al. teaches selecting one of a first plurality of green elements displayed by the display device that appears to most closely blend with

the dithered green background; estimating a coarse gamma for the display device based on the selected one of the first plurality of green elements (See above the rejection of claim 1).

Engeldrum et al. and Lui et al., Berger do not teach selecting one of the second plurality of the green elements displayed by the display device that appears to most closely blend with dithered green background, wherein the second plurality of green elements includes the selected one of the first plurality of green elements; and estimating a fine gamma for display device based on the selected one of the second of plurality of green elements, wherein the estimated fine gamma is the estimated gamma and the first plurality of green elements represent greater gradations in the green intensity that the second plurality of green elements.

One of ordinary skill in the art will recognize that the first and second plurality of green elements only different in the scale of gradations, therefore will required no new approach.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the second plurality of green elements and estimate a fine gamma in Engeldrum et al. and Lui et al., Berger computer-readable medium in order to display color images accurately and clearly.

As to claim 10, 41, 43, Engeldrum et al. teaches how to estimate both the blackpoint and the gray balance of the display device; and characterizing the colorimetric response of the display device based on the estimated gamma, blackpoint,

and gray balance (See Fig. 4, 5 items 302, 104, 102 in description See Col. 3, Lines 51-55 and Col.4, Lines 33-39).

As to claim 35, Engeldrum et al. teaches how to estimate both the blackpoint and the gray balance of the display device; and characterizing the colorimetric response of the display device based on the estimated gamma, blackpoint, and gray balance (See Fig. 4, 5 items 302, 104, 102 in description See Col. 3, Lines 51-55 and Col.4, Lines 33-39).

As to claim 13, Engeldrum et al. teaches the dithered green background overlaid by a number of closely spaced black lines.

One of ordinary skill in the art will recognize that any value of green background would be assigned for the testing and characterization, including 33% green background.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use 33% green background in the Engeldrum et al. and Lui et al., Berger method in order to display color images accurately and clearly.

As to claim 38, Engeldrum et al. and Lui et al., Berger teach the dithered green background overlaid by a number of closely spaced black lines.

One of ordinary skill in the art will recognize that any value of green background would be assigned for the testing and characterization, including 33% green background.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use 33% green background in the Engeldrum et al. and Lui et al., Berger computer-readable medium in order to display color images accurately and clearly.

4. Claims 9, 34 rejected under 35 U.S.C. 103(a) as being unpatentable over Engeldrum et al. and Lui et al., Berger as aforementioned in claim 1, 26 in view Hill et al. (US Patent No. 6,243,070 B1).

Engeldrum et al. and Lui et al., Berger do not show teaches the estimated gamma is limited to the green channel.

Hill et al. teaches the estimated gamma is limited to the green channel (See Col. 35, lines 3-10, and Lines 13-19, and Col. 36, Lines 46-52).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the Hill et al approach in the Engeldrum et al. and Lui et al., Berger system in order to display color images accurately and clearly.

5. Claims 2-3, 11-12, 15-16, 21-25, 27-28, 36-37, 42 rejected under 35 U.S.C. 103(a) as being unpatentable over Engeldrum et al. and Lui et al., Berger as aforementioned in claims 1, 26 in view of Seegers et al. (US Patent No. 6, 439, 722 B1).

As to claim 2, Engeldrum et al. and Lui et al., Berger do not teach to modify a color image based at least in part on the estimated gamma; and delivering the modified color image to the display device.

Seegers et al. show how to modify a color image based at least in part on the estimated gamma; and delivering the modified color image to the display device (See Col. 1, Lines 63-67 and Col.2, Lines 1-9).). It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the Seegers et al approach in the Engeldrum et al. and Lui et al., Berger method in order to display color images accurately and clearly.

As to claim 27, Engeldrum et al. and Lui et al., Berger do not teach to modify a color image based at least in part on the estimated gamma; and delivering the modified color image to the display device.

Seegers et al. show how to modify a color image based at least in part on the estimated gamma; and delivering the modified color image to the display device (See Col. 1, Lines 63-67 and Col.2, Lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the Seegers et al approach in the Engeldrum et al. and Lui et al., Berger the computer-readable medium in order to display color images accurately and clearly.

As to claim 3, Engeldrum et al. and Lui et al., Berger do not teach the display device is associated with a client residing on a computer network and transmitting information representing the estimated gamma to a remote server on the network; modifying the color image at the remote server based on the information; and delivering the modified image to the client via the computer network for display on the display device.

Seegers et al. show how the display device is associated with a client residing on a computer network and transmitting information representing the estimated gamma to a remote server on the network; modifying the color image at the remote server based on the information; and delivering the modified image to the client via the computer network for display on the display device (See Col. 1, Lines 63-67 and Col.2, Lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the Seegers et al approach in the Engeldrum et al. and Lui et al., Berger method in order to display color images accurately and clearly.

As to claim 28, Engeldrum et al. and Lui et al., Berger do not teach the display device is associated with a client residing on a computer network and transmitting information representing the estimated gamma to a remote server on the network; modifying the color image at the remote server based on the information; and delivering the modified image to the client via the computer network for display on the display device.

Seegers et al. show how the display device is associated with a client residing on a computer network and transmitting information representing the estimated gamma to a remote server on the network; modifying the color image at the remote server based on the information; and delivering the modified image to the client via the computer network for display on the display device (See Col. 1, Lines 63-67 and Col.2, Lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the Seegers et al approach in the Engeldrum et al. and Lui et al.,

Berger the computer-readable medium in order to display color images accurately and clearly.

As to claim 15, Engeldrum et al. and Lui et al., Berger teach the information includes an initial gamma for the display device, the initial gamma being determined based on selection of the displayed green element that appears to most closely blend with a dithered green background, and an overall gamma for red, blue, green channels of the display device determined from modification of the initial gamma based on a gray balance evaluation for the red and blue color channels (See rejection of claim 1).

Engeldrum et al. and Lui et al., Berger do not teach a system with a web server to transmit web pages to clients residing on a computer network; a color image server to transmit color images referenced by the web pages to the clients for display devices associated with the clients; a color profile server to guide clients through a color profiling process and obtain information characterizing the color responses of the display devices associated with the clients; one or more color correction modules to modify the color image server based on information to improve the accuracy of the color images when displayed on the respective display device

Seegers et al. teaches a system with a web server to transmit web pages to clients residing on a computer network See Fig. 1, item 14, in description See Col. 4, Lines 42-54); a color image server to transmit color images referenced by the web pages to the clients for display devices associated with the clients (See Col. 1, Lines 63-67 and Col.2, Lines 1-9); a color profile server to guide clients through a color profiling process and obtain information characterizing the color responses of the display

devices associated with the clients (See Col. 1, Lines 63-67 and Col.2, Lines 1-9); one or more color correction modules to modify the color image server based on information to improve the accuracy of the color images when displayed on the respective display device (See Col. 1, Lines 63-67 and Col.2, Lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the Seegers et al approach in the Engeldrum et al. and Lui et al., Berger the system in order to display color images accurately and clearly.

As to claim 16, Seegers et al. teaches the color image server the information to the client in the web cookie from the client to server, and the color image server modifies the color image via server based on the contents of the web cookie (See Fig. 1, item 24, in description See Col.1, Lines 63-67 and Col. 2, lines 1-9).

As to claims 21-22 Engeldrum et al. and Engeldrum et al. and Lui et al., Berger teaches selecting one of a first plurality of green elements displayed by the display device that appears to most closely blend with the dithered green background; estimating a coarse gamma for the display device based on the selected one of the first plurality of green elements (See above the rejection of claim 1).

Engeldrum et al. and Lui et al., Berger do not teach selecting one of the second plurality of the green elements displayed by the display device that appears to most closely blend with dithered green background, wherein the second plurality of green elements includes the selected one of the first plurality of green elements; and estimating a fine gamma for display device based on the selected one of the second of plurality of green elements, wherein the estimated fine gamma is the estimated gamma

and the first plurality of green elements represent greater gradations in the green intensity that the second plurality of green elements.

One of ordinary skill in the art will recognize that the first and second plurality of green elements only different in the scale of gradations, therefore will required no new approach.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the second plurality of green elements and estimate a fine gamma in the Engeldrum et al. and Lui et al., Berger system in order to display color images accurately and clearly.

As to claims 24, 42, Engeldrum et al. teaches how to estimate both the blackpoint and the gray balance of the display device; and characterizing the colorimetric response of the display device based on the estimated gamma, blackpoint, and gray balance (See Fig. 4, 5 items 302, 104, 102 in description See Col. 3, Lines 51-55 and Col.4, Lines 33-39).

As to claim 25, Engeldrum et al. teaches the dithered green background overlaid by a number of closely spaced black lines.

One of ordinary skill in the art will recognize that any value of green background would be assigned for the testing and characterization, including 33% green background. It would have been obvious to one of ordinary skill in the art at the time of the invention to use 33% green background in the Engeldrum et al. and Lui et al., Berger al. system in order to display color images accurately and clearly.

As to claims 11-12, Seegers et al. teaches transmitting information representing the estimated blackpoint, gamma and gray balance to a remote server on the network; delivering the modified color image to the client via the computer network for the display on the display device (Fig. 1, items 14, 24, in description See Col. 1, Line 64-67 and Col.2, Lines 1-9).

As to claims 36-37, Seegers et al. teaches transmitting information representing the estimated blackpoint, gamma and gray balance to a remote server on the network; delivering the modified color image to the client via the computer network for the display on the display device (Fig. 1, items 14, 24, in description See Col. 1, Line 64-67 and Col.2, Lines 1-9).

5. Claim 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Engeldrum et al., Lui et al., Berger and Seegers et al. in view of Hill et al.

As to claim 23 Engeldrum et al., Lui et al., Berger and Seegers et al. do not show teaches the estimated gamma is limited to the green channel.

Hill et al. teaches the estimated gamma is limited to the green channel (See Col. 35, lines 3-10, and Lines 13-19, and Col. 36, Lines 46-52).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the Hill et al approach in the Engeldrum et al., Lui et al., Berger and Seegers et al. the system in order to display color images accurately and clearly.

6. Claims 14, 39-40 rejected under 35 U.S.C. 103(a) as being unpatentable over Engeldrum et al., Lui et al., Berger as aforementioned in claims 1, 15 in view of Craft et al. (US Patent No. 6, 349,300 B1).

As to claim 14, Engeldrum et al., Lui et al., Berger do not show guiding the client through the process of obtaining the estimated gamma by delivering one or more instructional web pages to the client.

Craft et al. teaches guiding the client through the process of obtaining the estimated gamma by delivering one or more instructional web pages to the client (See Fig. 5, items 28, 30, in description See Col. 6, Lines 29-5900. It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the Craft et al approach in the Engeldrum et al. and Schonenberg et al. method in order to display color images accurately and clearly.

As to claim 39, Engeldrum et al., Lui et al., Berger do not show guiding the client through the process of obtaining the estimated gamma by delivering one or more instructional web pages to the client.

Craft et al. teaches guiding the client through the process of obtaining the estimated gamma by delivering one or more instructional web pages to the client (See Fig. 5, items 28, 30, in description See Col. 6, Lines 29-5900.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the Craft et al approach in Engeldrum et al., Lui et al., Berger computer-readable medium in order to display color images accurately and clearly.

As to claim 40, Craft et al teaches the instructions are contained both in physical data storage media and signals transmitted between the client and other resources on the computer network (See Fig. 1, items 35, 18, in description See Col. 1, Lines 42-46 and Col. 2, Lines 20-33).

Response to Amendment

8. Applicant's arguments filed on 11.06.03 with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.

Telephone inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 703-305-5661. The examiner can normally be reached on 8 a.m. to 5 p.m..

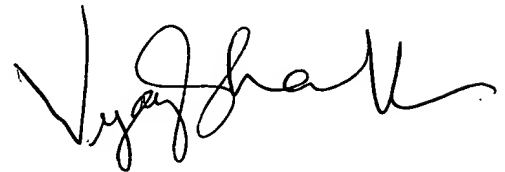
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703-305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2673

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ls

03.04.05

A handwritten signature in black ink, appearing to read 'Vijay Shankar', with a stylized, cursive script.

**VIJAY SHANKAR
PRIMARY EXAMINER**